

## Bag Filter Housings Operations Manual



**USE OF BAG FILTER HOUSINGS THAT ARE NOT COMPLIANT WITH THESE INSTRUCTIONS INDEMNIFY PRM FROM ANY DAMAGES THAT MAY RESULT FROM THEIR MISUSE. PLEASE READ AND UNDERSTAND THIS MANUAL AND ONLY USE THE EQUIPMENT AS SPECIFIED. IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT A REPRESENTATIVE AT PRODUCT RECOVERY MANAGEMENT.**

## SECTION 1. General Safety Instructions



Please read the instruction book before using



Ensure the connections to the housing are secure and without leaks



Always close the isolation valves, vent and drain the housing before opening. Opening the housing while it is under pressure may result in the contents spraying out, potentially causing damage to equipment and personal injury.



Housings are only for water filtration. Processing anything other than water indemnifies Product Recovery Management, Inc. from any liability of any problems or damages that may arise.youtube

## SECTION 2. Summary

Bagfilters.com is a wholly owned Trade Name of Product Recovery Management, Inc. (PRM). PRM is proud to be able to supply a variety of Bag Filter Housing models to accommodate your treatment needs. Available as bare housings or predesigned, packaged skids and ready to go when it reaches the project site. PRM supplies a wide variety of replaceable bag filter elements for the housings.

Bag Filter Housings are one of the most common and efficient technologies implemented for filtration of water where it is desirable to capture insoluble particles cost effectively. The operator simply selects the bag filter element that goes in the housing by gauging its level of necessary filtration sizing. Bags are rated in micron sizes typically 1000micron to 1micron in size where smaller numbers mean more aggressive filtration.

Solids are captured on the interior lining of the filter bag and replaced as the solids collection causes the differential pressure (dp) across the housing to increase. It is typically that bag elements are replaced when the dp get between 5 and 10psig. Greater pressures can cause damage where the bags retaining basket can rupture and cause failure. If critical systems are being utilized, it is recommended that differential pressure transmitters or switches be implemented to ensure that the pump feeding the system is turned off before damage can occur.

It is common for bag filter housings to be installed in series where larger micron ratings are implemented in the first housings and smaller micron rated bags are implemented downstream. This method can be implemented to extend the effectiveness of filtration over time and to minimize O&M activities.

Please consult with PRM for design assistance questions or for quotations for packaged filtration systems to meet your needs.

## SECTION 3. Single Bag Model Features:

The standard features for the single bag filter housings are shown below. Each style can be made in a variety of configurations. For the full breadth of housings we offer and their specifications, visit [shop.prmfiltration.com](http://shop.prmfiltration.com):

### High Pressure Bolt Plate Housing NPT

- 150 PSI Maximum Working Pressure
- 100 GPM Flow Rate
- 304 Stainless Steel Construction
- 8"x 30" Trade Size # 2 Housing
- Available with NPT or Flanged connections
- Also available in Trade Size #4



### Low Pressure Banded Top Housing

- 100 PSI Maximum working pressure
- 100 GPM Flow Rate
- 304 Stainless Steel Construction
- 8"x30" Trade Size #2 Housing
- Available with NPT or Flanged connections
- Quick opening clap top



### Carbon Steel High Pressure Bolt Plate Top

- 150 PSI Maximum Working Pressure
- 100 GPM Flow Rate
- Carbon Steel Construction 8"x 30" Trade Size # 2 Housing
- Available with NPT or Flanged connections
- Epoxy Coated
- 8"x 30" Trade Size # 2 Housing



## Single Bag Filter Options

Each Bag Filter has the following options available:

- Skid mounting, pre-plumbed filter array
- Steel, Stainless Steel, or PVC Piping with valves
- Custom Integration Into Existing Systems
- Optional connection styles of NPT and Flanged are available
- Replacement Bag Filters available in stock
  - ❖ 5, 10, 25, 50, and 100 Micron rated filters
- Custom modifications are available, contact a representative at [bagfilters.com](http://bagfilters.com) for more details!



## SECTION 4. Instructions

### **Step 1. Connecting a Bag Filter Housing**

When installing the Bag Filter Housing loosen the bolts on the stand so the height of the housing can be adjusted by sliding the cylinder up or down. Tighten the bolts once the desired height is achieved. Before bolting the legs to the surface on which it is placed, ensure that the housing is as level as possible.

Isolation valves should be used before and after the housing to allow for safe filter replacement.

If the connection style is flanged, the provided gaskets should be used to ensure a good seal is made between the Housing and the inline pre and post isolation valves.

When connecting an NPT fitted Housing thread sealant should be applied to ensure a watertight seal is achieved.

### **Step 2. Accessing the interior of the Bag Filter Housing**

Always release the pressure within the Housing before opening, by closing the inlet isolation valve and opening the vent. Once the internal pressure has normalized, close the outlet isolation valve. With both isolation valves closed and the pressure released the lid can be safely opened.

#### **For bolt plate lid (high-pressure) models:**

Loosen the eye nuts in diagonal pairs so that it is evenly loosened and fold the hinge bolts down. When preparing to fasten the lid back on the housing, inspect the O-ring for damage or debris before putting the lid in place. The bolts should be tightened in an alternating star pattern to ensure a tight and even seal.

#### **For banded lid (low-pressure) models:**

Filter Housings with banded lids are opened by loosening the banding bolt that holds the lid's band in place. Once the band has been loosened enough the lid can be removed. When reassembling the lid, inspect the O-ring for damage or debris before the lid is properly aligned, then tighten the banding bolt.





### Step 3. Releasing the filter bag

PRM bag filter housings use one of two mechanisms to ensure that the filter remains snug inside the filter basket. These retainers vary by housing.

#### Lever Retainers:

To release the filter bag, loosen the bracket bolt on the interior of the housing. Rotate the bracket counterclockwise out of the slots and remove the bracket.



When the bracket has been taken out the housing the plate that holds the bag filters in place can be removed along with the bags.

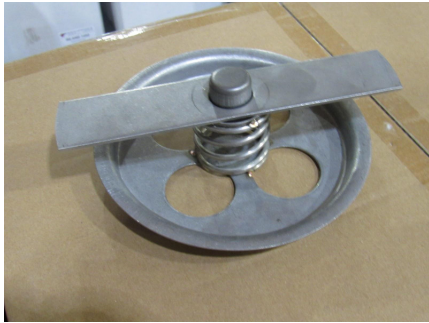


#### Spring Retainers:

A spring retainer is placed in a bag filter according to this photo:

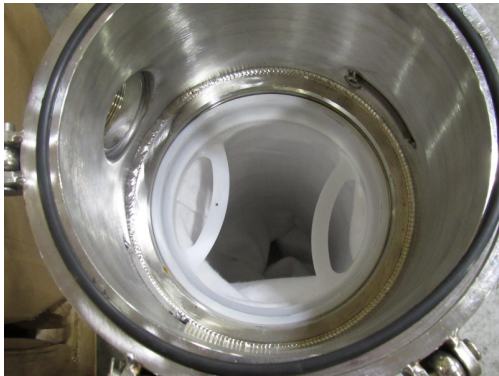


Press down on the retaining bar, and turn it counter clockwise until it is released from its groove. The retaining ring can now be removed from the housing,



#### **Step 4: Replacing the filter bag**

With the restraining ring removed, the filter bag may now be removed, and properly disposed of. Then, a replacement bag may be fitted, and the restraining ring twisted back into place.





## SECTION 5. Replacement Filters

PRM proudly carries liquid filter bags made with the highest grade material to offer you quality and efficiency in each bag.

### Polyester Felt Bags

- Filters are available in #2 and #4 Industry Sizes
- Cases are sold in 10, 25 or 50 bag quantities
- Polypropylene Bag Handles are standard on bags at no additional cost
- The maximum temperature of the filters is 300°F
- The bags are Sewn Seam using 5 line system
- The filters come in a 1, 5, 10, 25, 50, 100, and 200 micron mesh
- Oil absorbing bag filter elements

